“Loan-Portfolio Quality and the Diffusion of Technological Innovation”

by

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Discussed by Arnoud W. A. Boot
ISSUE: tendency in Basel II to induce institutions to reveal their risk management systems/methodology to establish industry “best practice”

QUESTION: does this dissemination of innovations undermine banks’ incentives to innovate ex ante?

ANSWER: yes it does!

- sharing screening technology leads to fiercer competition, reducing NPV of investment in such technology
Approach

- Focus on a single technology leader’s incentives

- Incentives are about initial investment in screening technology for bank lending

- Lending in two periods with potential sharing in the second

- Technology leader faces one competitor
  - Bertrand competition in each period, mixed strategy equilibrium in the lending market
Key result: banking sector’s expected loan portfolio quality is maximized by choosing less than perfect diffusion.

Paper goes on to argue that there might be commitment problems:
- \( \Rightarrow \) ex post full dissemination optimal

Reward innovators?
- \( \Rightarrow \) more lenient supervision
- \( \Rightarrow \) allow it to enter new markets??
- \( \Rightarrow \) have bank block diffusion
Paper could easily be more ambitious

Important question: what is special about banking?

Answer:

• Quality of the industry at large should be a concern to all players
  → total demand of banking services may depend on confidence in the system
  → as paper stands now, any one player only benefits from failures of competitors

• Industry-wide investment and dissemination of technology is the issue
  → suggests IO/general equilibrium approach
Why broader IO approach?

- Real world industry structure will have some players specialize in risk management services

- They may leverage their own (proprietary) knowledge
  - in doing so preempt competitors from building up their own capabilities

- Sharing the basic standards may not at all reduce the value of further innovations
  - we are not talking about stand-alone innovations!!
Conclusion

- Extremely interesting and important problem
- Paper could expand on the problem by putting it more in the banking context
- IO approach would allow for real policy implications